

Illinois Century Network

Policy Committee Meeting Agenda

January 23, 2009
1:00 p.m.

**ILLINOIS CENTURY NETWORK
POLICY COMMITTEE
MEETING AGENDA
January 23, 2009
1:00 p.m.**

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**Next Meeting – April 20, 2009
Illinois Community College Board, Springfield
James R. Thompson Center, Chicago**

ILLINOIS CENTURY NETWORK

November 17, 2008 POLICY COMMITTEE MINUTES

Submitted for: Action

Summary: Distribution of the November 17, 2008 minutes for review by the Policy Committee.

Action Requested: Adoption of the November 17, 2008 minutes.

Recommended Motion: The ICN Policy Committee adopts the November 17, 2008 minutes with any edits as noted.

ILLINOIS CENTURY NETWORK

November 17, 2008 POLICY COMMITTEE MINUTES

Greg Wass called the meeting to order.

Members present:

Greg Wass, Office of the Governor;
Scott Norton, IL State Board of Education;
Chet Olson, Mayor of Rochelle;
Todd Jorns, IL Community College Board;
Amy Edwards, IL Board of Higher Education;

Mike Dickson, Western Illinois University;
Beth Shea, IL State Museums;
Anne Craig, IL State Library;
Jay Carlson, Charter Communications;

Springfield staff and guests:

Lori Sorenson, Central Management Services;
Tom Oseland, Central Management Services;
Melissa Camille, Central Management Services;
Kathleen Bloomberg, Illinois State Library;
Ryan Croke, Office of the Lt. Governor;
Vicki DeWitt, ISBE LTC

Stacey Mattera, Central Management Services;
Kirk Mulvany, Central Management Services;
Carla Paoni, AT & T;
Jeff Thompson, Central Management Services;
Robin Woodsome, Central Management Services

Announcements and Remarks

Greg welcomed everyone for coming. Lori reminded everyone to complete and turn in their time sheets.

Minutes

Greg introduced the first item on the agenda, the approval of the minutes from the September 22, 2008 meeting. Greg asked for a motion to approve the minutes. Carolyn Brown-Hodge motioned that the minutes be approved. Chet Olson seconded the motion. Motion carried.

World War II Digital Archives Project

Vicki DeWitt, Director for the Illinois State Board of Education Learning Technology Center Area 5. Vicki shared that she is responsible for serving K-12 schools in 16 counties southern Illinois. The Illinois World War II Memorial Board, the Area 5 Learning Technology Center, and their partners have created a statewide digital project -- the Illinois WWII Memorial Board Classroom Project. The two main goals of the Illinois Classroom Project are: 1) to provide students the opportunity, training and equipment to do personal interviews and captured World War II Veterans' experiences organized around an inquiry-based, digital-story telling learning experience and 2) to provide students with authentic connections which foster a deeper understanding and knowledge of the overall purpose and sacrifices made by Illinois WWII survivors, their families and their communities.

Funding from the Illinois World War II Memorial Board purchased the video and computer equipment for 17 participating schools. Each school/team is tasked with completing a minimum

of 10 stories to post to the web (www.iltc.k12.il.us). The web server is located at an ICN POP site to ensure adequate bandwidth and accessibility.

Statewide Security Form

Jeff Thompson from CMS provided a presentation on the capabilities and practices of the CMS security and compliance team. Jeff explained that the team tests server vulnerability, investigated cyber attacks on state assets, and scans .gov, .edu, and .us website looking for compromised websites. Jeff explained that the federal government has created a cyber security portal for states to communicate and collaborate. This portal could be used to connect educational and government IT security professionals. Jeff also discussed possibilities for organizing a training and information sharing sessions.

Regional Meeting Summary

Robin Woodsome presented this item on the agenda. The annual ICN Regional Meetings were completed in the Fall. All sessions took place as scheduled and were well attended. Multiple BCCS/ICN personnel participated at each meeting including staff from Agency Relations, Network Services and the RTC offices.

The format was changed this year and focused more on current ICN initiatives and challenges, and included an interactive session during the second half of the program. The interactive session provided an opportunity for questions directed to ICN staff and to other participants to speak about projects and successes as well as challenges and to do some networking with peers. Participation in the interactive session ranged from ICN staff leading the discussion based on questions from the audience, to participants having lively interaction directly with each other on subjects like use of Blackboard for on line courses, bandwidth management, dealing with security issues, network designs, migration to fiber based Ethernet connections and multiple providers. Questions to ICN staff included questions about bandwidth management tools, our bandwidth costs, the need for a baseline bandwidth increase, ICN coordinating user groups, collocation services, video conferencing, and connectivity options.

In summary, there were few requests for new services which may reflect discussion of the budget cut. There were many questions about and requests for revisions to the cost recovery policy to provide higher baselines and to reduce the current cost for purchasing additional bandwidth. Non-primary constituents expressed the difficulty of remaining on the ICN due to our high bandwidth costs which are higher than other providers.

E-Rate Update

Tom Oseland presented this agenda item. Funding approval was granted for the ICN 2007 E-Rate application on April 8, 2008. On September 23, reimbursement requests totaling \$941,396.13 were submitted to USAC. So far, \$678,178.05 has been collected for this funding year.

The initial review status of the ICN E-Rate 2008 funding year application remains unchanged. As previously reported, due to the expiration of the State's master contract for Network Services on September 15, 2008, this application will be held in review until it can be determined how services provided under this contract will be covered for the remainder of the state's fiscal year and related E-Rate funding year.

Network Update

Kirk Mulvany presented this agenda item which included an update on backbone circuits, fiber implementation and Quality of Service enhancements.

Backbone Circuit Upgrades - ICN has been working on a statewide backbone circuit RFP. The goal of this RFP is to identify opportunities to procure additional backbone bandwidth capacity throughout the State. This RFP has resulted in contract awards with multiple vendors based on the outcome of an evaluation process on a circuit by circuit basis. As master contracts are executed between CMS and the respective vendor, CMS is proceeding with individual circuit orders to obtain increased network bandwidth.

Fiber Implementation - Kirk shared that the fiber implementation and design methodology is such that the total fiber pairs for each segment of the core network will be divided into three categories of use: ICN production backbone, ICN backbone testing and maintenance, and local access to the network at designated points. This effort will result in benefits including increased network availability and added constituent connectivity options.

Quality of Service (QoS) Enhancement - This version of QoS is such that IP traffic tagged as video or voice is given a priority in the queue if ever in contention for bandwidth with other IP traffic on a given network segment. The benefit with this version of QoS is stability of IP video and voice calls during times of high bandwidth utilization while all other traffic is sent in a “best effort” manner.

The benefit of this enhanced QoS model is that the importance of applications can be determined and defined so that, during a crisis, critical infrastructure traffic is prioritized properly. Any remaining traffic could be queued based upon real-time needs such as video, voice, and high priority. We are presently looking at six different priority categories within this QoS model ranging from “first responder real time” down to “best effort” traffic.

Policy Committee Meeting Schedule

The committee approved the 2009 meeting schedule.

ILLINOIS CENTURY NETWORK

ICN Cost Allocation Review

Submitted for: Information

Summary: This item allows for an open discussion on the status of the ICN Cost Allocation Review.

ILLINOIS CENTURY NETWORK

Communications Management Center (CMC)
Overview

Submitted for: Information

Summary: This item provides an overview regarding the Communications Management Center

Action Requested: None

ILLINOIS CENTURY NETWORK

Communications Management Center (CMC) Overview

The CMC is the 24x7 help desk which monitors the ICN backbone network and all constituent connections. The CMC fields over 2,000 calls per month. The duties and responsibilities of the CMC include: 1) proactive monitoring of the backbone and constituent connections, 2) managing and resolving service disruptions, and 3) coordinating customer communication for planned network maintenance and conducting post-maintenance testing.

Proactive Monitoring - The CMC is staffed by network technicians with training and experience in telecommunications, wide area networking, circuit testing and router configuration. Staff utilizes monitoring tools to proactively identify backbone and customer outages. Tools include Solarwinds for monitoring circuit and hardware status, bandwidth utilization, router and switch performance and load and temperatures, and HOBBIT for monitoring agency data servers, mail servers and web site servers. Other tools are used to monitor POP site environment for temperature and humidity, and power and UPS systems.

Trouble Resolution - Once the CMC staff identifies an outage condition through the monitoring tools or as a result of a constituent call, they perform a variety of tests to isolate the cause for the outage. Typically an outage is due a problem with the circuit or hardware failure. Once the problem is determined, the CMC engage the appropriate vendor resources or other network staff to begin working on the problem and provide status updates to the customer until the problem is resolved.

Change Management – In an effort to minimize service disruptions to the constituents, ICN engineers perform maintenance activity during the weekly maintenance window which is Saturdays from 12:01 am to 5:00 am. Each week the CMC sends an email notification to all constituents who may be impacted during the weekend maintenance work. The CMC also works with the network engineers to test connectivity and services after the maintenance work to ensure all services are fully operational.

Severe Weather Response Plans - During severe weather conditions, call volumes and outage alarms at the CMC can increase dramatically due to wide spread power outages and telecommunications carrier outages. Often times when extreme weather hits Illinois the Illinois Emergency Management Agency activates the State Emergency Operations Center (SEOC) to coordinate service restoration, emergency response and other related activities throughout the State. When the SEOC is activated, the CMC works closely with the CMS SEOC Liaison to provide status updates to emergency management personnel and BCCS management staff on network outages and call volume. Updates are sent every two hours or as requested based on changing conditions. When the situation warrants, an audio bridge is set up for engineers and management staff. If the number of outages warrants additional resources, the CMC can also engage Regional Technology Center technicians. The greatest challenge during periods of significant outages is opening tickets with the telecommunication carriers due to the long wait times.

Content Providers on the Network

ICN staff has initiated a project to explore the possibility of locating commercial content provider servers at ICN POP sites as a way of providing more direct and dependable connectivity for schools subscribing to the service. By locating the content on the backbone, it reduces the operating cost for the ICN, increases performance for the constituent, and most likely decreases the operating cost for the vendor.

We are initially focusing on what we understand to be the most popular companies which include ISCorp and Skyward for business applications and curriculum development, and United Streaming for video streaming content. We also will be working with schools to identify other providers/applications which should be considered.

ILLINOIS CENTURY NETWORK

E-RATE UPDATE

Submitted for: Information

Summary: This item provides an update regarding the E-rate program.

Action Requested: None

ILLINOIS CENTURY NETWORK

E-RATE UPDATE

The chart below summarizes E-Rate funding activity and status for each funding year application.

E-Rate Activity

Funding Year	Received	Approved – Not yet received	Applied for Not yet approved	Under Appeal
Year 3 (2000)	\$2,137,765	-0-	-0-	N/A
Year 4 (2001)	\$2,179,728	-0-	-0-	\$2,274,232 ¹
Year 5 (2002)	\$4,996,227	-0-	-0-	N/A
Year 6 (2003)	\$4,644,171	-0-	-0-	N/A
Year 7 (2004)	\$2,497,427	-0-	-0-	\$393,338 ²
Year 8 (2005)	\$2,424,567	-0-	-0-	N/A
Year 9 (2006)	\$982,392	-0-	-0-	N/A
Year 10 (2007)	\$947,048	\$6,495	-0-	N/A
Year 11 (2008)	N/A	N/A	\$1,604,177	N/A
Year 12 (2009)	N/A	N/A	N/A	N/A
Totals	\$20,809,325	\$6,495	\$1,604,177	\$2,667,570

Funding approval was granted for the ICN 2007 E-Rate application on April 8, 2008. To date, \$947,048 (99.32%) has been collected for that funding year.

The “initial review” status of the ICN 2008 E-Rate funding year application remains unchanged. As previously reported, due to the expiration of the State’s master contract for Network Services on 9/15/08, this application will be held in review until it can be determined how services provided under this contract will be covered for the remainder of the state’s fiscal year and related E-Rate funding year.

The Year 12 application process has started. The application is due February 12, 2009.

KPMG LLP was selected to conduct a compliance attestation examination of the Illinois Century Network regarding their participation in the Universal Service Administrative Company's (USAC) School & Libraries (S&L) Program funds for Program Years 7, 8, and 9 (FYs 05, 06,

¹ The probability of receiving this funding request is almost non-existent. Denial was based on the expiration of a master contract during the funding year.

² This remaining amount under appeal is related to the ICN Year 7 Library application. For unknown reasons, the FCC did not include this application in their decision to grant the ICN appeal of denied funding for the School application.

07). KPMG is auditing Funding Request Numbers (FRNs) from three funding/fiscal years, as reimbursements totaling \$ 5,651,700 from those years were received in FY08.

Auditors began their on-site field work on Tuesday, January 20, 2009. They will be in Springfield until February 13. Their field work will be focusing on budgets, record retention, procurement, service provider selection and contracting, and supporting documentation for the FRNs. KPMG's plan for this audit is to also make some site visits in addition to "pinging" constituents to verify their existence on the network.

Mr. Wayne Scott, Vice President, Internal Audit Division, at USAC is also scheduled to visit BCCS during the field work. The ICN is one the largest consortium applications to the Schools and Libraries program.

ILLINOIS CENTURY NETWORK

NETWORK UPDATE

Submitted for: Information

Summary: This item provides the Policy Committee with a brief summary of the ICN Network Updates.

ILLINOIS CENTURY NETWORK

NETWORK SERVICES UPDATE

Last Mile

ICN continues to explore last mile options for constituent network connectivity. In December, ICN Point-of-Presence (POP) site equipment was upgraded in Macomb to prepare for the handoff of a fiber based, Ethernet connection from McDonough Telephone Cooperative to the ICN. This connection will result in an additional option for last mile transport of ICN constituent connectivity in the Macomb area to the ICN, capable of accommodating bandwidth needs in scalable increments.

State-Owned Fiber

Fiber acquisition and discovery efforts are still underway. Fiber construction projects for the “South Build” in Springfield as well as Collinsville are nearing completion. The DWDM Equipment RFP evaluation is progressing as well.

Network Redundancy

ICN has been involved with efforts to improve network redundancy and survivability for State Agency customers in Springfield. This effort has been driven by the IT Consolidation of state agencies into the enterprise data center managed by CMS. Over the past several months, additional redundancy has been implemented in different levels of the network environment pertaining to these state agency sites. The levels of redundancy include:

- **Logical Configuration**– Configuration to insure that the network connection is routed through more than one distribution router.
- **Last Mile Connection** – More than one connection into the ICN POP Sites.
- **Customer Premise Equipment** – More than one head-end router at the agency site.
- **ICN Point-of Presence (POP) Site** – Physical network connection to both of the Springfield ICN POP Sites.

This is a tangible example of how the ICN can be leveraged to help meet disaster recovery and business continuity needs. As constituents are considering disaster recovery and business continuity plans locally, we would be happy to provide information and consultation in terms of redundancy components that may be a viable option to assist in meeting constituent needs.

ILLINOIS CENTURY NETWORK

Statewide Security Forum Update

Submitted for: Information

Summary: This item proved the Policy Committee with an update on the Central Management Services Security and Compliance team.